

Notch Signaling In Benign And Malignant Ameloblastic Neoplasms

Type:

Article

Abstract:

Background: In general, Notch is a representative signal which controls morphosis and differentiation of cells, but its role in human odontogenic neoplasms, especially in ameloblastoma and its malignant counter-part, ameloblastic carcinoma, is not known. **Methods:** We examined Notch1 peptide and its gene (mRNA) in an ameloblastoma (case 1: 27-year-old female, right mandibular tumor) and an ameloblastic carcinoma (case 2: 93-year-old female, right mandibular tumor), using immunohistochemistry (IHC) and in situ hybridization (ISH) techniques. **Results:** Notch1 intracellular domain (NICD) Positive products were observed in the cells at the peripheral layer of most proliferating epithelial tumor nests in case 1. In case 2, positive products were similarly detected. In particular, small numbers of mitoses were identified in the nuclear region With intense NICE positive reaction. **Conclusions:** Notch signaling plays some role in cytological differentiation or acquisition of tissue specific characteristics in neoplastic cells of odontogenic neoplasms including ameloblastoma and ameloblastic carcinoma. Notch I may also contribute to Cell cycle arrest induced by Notch1 activation in ameloblastic carcinoma.

Author	<ul style="list-style-type: none">• Nakano, K.• Siar, C. H.• Tsujigiwa, H.• Nagatsuka, H.• Nagai, N.• Kawakami, T.
Source	European Journal of Medical Research
ISSN	0949-2321
DOI	-
Volume (Issue)	13(10)
Page	476-480
Year	2008

Keyword:

Odontogenic,ameloblastoma,ameloblastic carcinoma,Notch,malignancy,expression patterns,receptor,hematopoiesis,ligand,cells

Please Cite As:

NAKANO, K., SIAR, C. H., TSUJIGIWA, H., NAGATSUKA, H., NAGAI, N. & KAWAKAMI, T. 2008. **Notch Signaling In Benign And Malignant Ameloblastic Neoplasms**. *European Journal of Medical Research*, 13, 476-480.

URL:

- <http://apps.webofknowledge.com> search via Accession No >>000260763400007
- <http://www.scopus.com/inward/record.url?eid=2-s2.0-56249116587&partnerID=40&md5=84f6b689d387d0675febae300ae9680f>
- <http://www.ncbi.nlm.nih.gov/pubmed/19008176>
- <http://www.i-md.com/docsearch/doc/f732a03f-8a30-49a3-b12a-4248b330dfdb>